

[illegible]

SAT  
VO4

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SSSSSSSS AAAAAA TTTT TTTT SSSSSSSS SSSSSSSS SSSSSSSS 44 44 11
SSSSSSSS AAAAAA TTTT TTTT SSSSSSSS SSSSSSSS SSSSSSSS 44 44 11
SS SS AA AA TT SS SS 44 44 1111
SS SS AA AA TT SS SS 44 44 1111
SS SS AA AA TT SS SS 44 44 11
SS SSSSSS AA AA TT SSSSSS SSSSSS SSSSSS 44 44 11
SS SSSSSS AA AA TT SSSSSS SSSSSS SSSSSS 44 44 11
SS SS AA AA TT SS SS 44 44 11
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SS SS AA AA TT SS SS 44 44 11
SSSSSSSS AA AA TT SSSSSSSS SSSSSSSS SSSSSSSS 4444444444 11
SSSSSSSS AA AA TT SSSSSSSS SSSSSSSS SSSSSSSS 4444444444 11
SS SS AA AA TT SS SS 44 11
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SS SS AA AA TT SS SS 44 11
SSSSSSSS AA AA TT SSSSSSSS SSSSSSSS SSSSSSSS 44 111111
SSSSSSSS AA AA TT SSSSSSSS SSSSSSSS SSSSSSSS 44 111111
...
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...

LL IIIII! SSSSSSSS
LL IIIIII SSSSSSSS
LL II
LL II
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LL II
LL II
LL II
LL II
LL II
LLLLLLLLLLLL IIIIII SSSSSSSS
LLLLLLLLLLLL IIIIII SSSSSSSS

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(1)	54	DECLARATIONS
(1)	102	CONDITION TABLES
(1)	127	TM SETUP, TM CLEANUP
(1)	214	CONDITION SUBROUTINES - SETUP AND CLEANUP
(1)	284	FORM CONDS
(1)	377	VERIFY
(1)	461	VFY_CLEANUP

```
0000 1 .TITLE SATSSS41 SATS SYSTEM SERVICE TESTS $EXIT (SUCC S.C.)
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 :*****
0000 6 :*
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0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
0000 28
0000 29 :++
0000 30 : FACILITY: SYSTST (SATS SYSTEM SERVICE TESTS)
0000 31 :
0000 32 : ABSTRACT:
0000 33 :
0000 34 : THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000 35 : WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS41 TO TEST SUCCESSFUL
0000 36 : OPERATION OF THE $EXIT SYSTEM SERVICE. THE SERVICE IS INVOKED
0000 37 : UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000 38 : SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE. CORRECT
0000 39 : OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000 40 : CHECKING FOR AN SSS NORMAL STATUS CODE, EXPECTED RETURN ARGUMENTS
0000 41 : AND EXPECTED FUNCTIONALITY PERFORMED.
0000 42 :
0000 43 : ENVIRONMENT: USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000 44 : DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000 45 :
0000 46 : AUTHOR: THOMAS L. CAFARELLA, CREATION DATE: OCT, 1977
0000 47 :
0000 48 : MODIFIED BY:
0000 49 :
0000 50 : V03-001 LDJ0001 Larry D. Jones, 23-Jun-1983
0000 51 : Removed quota list to use default sysboot quota values.
0000 52 :--
```

SATSSS41  
V04-000

SATS SYSTEM SERVICE TESTS \$EXIT (SUCC S 16-SEP-1984 00:53:26 VAX/VMS Macro V04-00  
DECLARATIONS 5-SEP-1984 04:31:16 [UETPSY.SRC]SATSSS41.MAR;1

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```
0000 54 .SBTTL DECLARATIONS
0000 55 :
0000 56 : INCLUDE FILES:
0000 57 :
0000 58 $PRVDEF ; PRIVILEGE BIT DEFINITIONS
0000 59 $PHDDEF ; PROCESS HEADER OFFSETS
0000 60 $PQLDEF ; PROCESS QUOTA CODES
0000 61 $PCBDEF ; PCB LABELS
0000 62 $DIBDEF ; DEVICE INFO BLOCK OFFSETS
0000 63 :
0000 64 : MACROS:
0000 65 :
0000 66 :
0000 67 : EQUATED SYMBOLS:
0000 68 :
0000 69 :
0000 70 : OWN STORAGE:
0000 71 :
```

SATS SYSTEM SERVICE TESTS \$EXIT (SUCC S 16-SEP-1984 00:53:26 VAX/VMS Macro V04-00 Page 3  
DECLARATIONS 5-SEP-1984 04:31:16 [UETPSY.SRC]SATSSS41.MAR;1 (1)

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00000000 73      .PSECT  RODATA, RD, NOWRT, NOEXE, LONG
0000 74 TEST_MOD_NAME:: STRING  C,<SATSSS41>      ; TEST MODULE NAME
0009 75 TEST_MOD_NAME_D: STRING  I,<SATSSS41>      ; TEST MODULE NAME DESCRIPTOR
0019 76 MSG1_INP_CTL:  STRING  I,< SSEXI!4ZW: CONDITIONS:>
0039 77      ; FAO CTL STRING FOR MSG1 IN SUCCOMMON.MAR
0039 78 MSG3_ERR_CTL:: STRING  I,< *SSEXI!4ZW: !AS>
0051 79      ; FAO CTL STRING FOR MSG3 IN SUCCOMMON.MAR
0051 80 CRENAME:      STRING  I,<SATSSS41 CRE>      ; PROCESS & MBX NAME FOR CREATED PROCESS
0065 81 IMAGNAM:      STRING  I,<SYSTST$RES:SATSUTO9.EXE>
0084 82      ; IMAGE NAME FOR CREATED PROCESS
0084 83 ;QUOTALIST:    $QUOTA  CPULM,0                ; INFINITE CPU
0084 84 :             $QUOTA  BYTLM,512              ; BYTE LIMIT FOR BUFFERED I/O
0084 85 :             $QUOTA  FILLM,2                ; OPEN FILE COUNT LIMIT
0084 86 :             $QUOTA  PGFLQUOTA,10           ; PAGING FILE QUOTA
0084 87 :             $QUOTA  PRCLM,2                ; SUBPROCESS QUOTA
0084 88 :             $QUOTA  TQELM,3                ; TIMER QUEUE ENTRY QUOTA
0084 89 :             $QUOTA  LISTEND                ; DEFINES END OF LIST

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V04-000

SATS SYSTEM SERVICE TESTS \$EXIT (SUCC S 16-SEP-1984 00:53:26 VAX/VMS Macro V04-00 Page 4  
DECLARATIONS 5-SEP-1984 04:31:16 [UETPSY.SRC]SATSSS41.MAR;1 (1)

00000000	91	.PSECT	RWDATA, RD, WRT, NOEXE, LONG	
00000008	92	PRIVMASK:	.BLKQ 1	: ADDR OF PRIVILEGE MASK (IN PHD)
0000000C	93	MBXCHAN:	.BLKL 1	: CHAN NO. FOR MAILBOX FOR CREATED PROCESS
	94	MBXCHANINFO:		: CHANNEL INFO RETURNED BY GETCHN
00000074	95		.LONG DIB\$K_LENGTH	
00000014	96		.ADDRESS +4	
00000088	97		.BLKB DIB\$K_LENGTH	
0000008C	98	MBXUNIT:	.BLKL 1	: SAVE AREA FOR MAILBOX UNIT NUMBER
	99	MBXBUFF:	STRING 0,120	: MAILBOX BUFFER FOR CREATED PROCESS
00000110	100	CREPID:	.BLKL 1	: PID OF CREATED PROCESS

```

0110 102 .SBTTL CONDITION TABLES
0110 103 ***** CONDITION TABLES FOR EXIT SYSTEM SERVICE *****
0110 104
0110 105
0110 106 COND 1,NOTARG,<PROCESS TYPE>,-
0110 107 <SUBPROCESS>,-
0110 108 <DETACHED, DIFFERENT GROUP>,-
0110 109 <DETACHED, SAME GROUP, SAME MEMBER>,-
0110 110 <DETACHED, SAME GROUP, DIFFERENT MEMBER>,-
0110 111
00000000 019C 112 .LONG 0 : PSEUDO-UIC
000001A4 01A0 113 .BLKL 1 : UIC
000001A8 01A4 114 .BLKL 1 : UIC
000001AC 01A8 115 .BLKL 1 : UIC
01AC 116 ;
01AC 117 COND 2,NULL
01AD 118 COND 3,NULL
01AD 119 COND 4,NULL
01AE 120 COND 5,NULL
01AE 121
01AF 122
01AF 123
01B0 124 .PSECT SATSSS41,RD,WRT,EXE
00000000 125

```

```
0000 127 .SBTTL TM_SETUP, TM_CLEANUP
0000 128 :++
0000 129 : FUNCTIONAL DESCRIPTION:
0000 130 :
0000 131 : TM SETUP AND TM CLEANUP ARE CALLED TO PERFORM
0000 132 : REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
0000 133 : TEST MODULE EXECUTION.
0000 134 :
0000 135 : CALLING SEQUENCE:
0000 136 :
0000 137 : BSBW TM_SETUP BSBW TM_CLEANUP
0000 138 :
0000 139 : INPUT PARAMETERS:
0000 140 :
0000 141 : NONE
0000 142 :
0000 143 : IMPLICIT INPUTS:
0000 144 :
0000 145 : NONE
0000 146 :
0000 147 : OUTPUT PARAMETERS:
0000 148 :
0000 149 : NONE
0000 150 :
0000 151 : IMPLICIT OUTPUTS:
0000 152 :
0000 153 : TM_SETUP: COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
0000 154 : ALL PRIVILEGES ACQUIRED.
0000 155 :
0000 156 : COMPLETION CODES:
0000 157 :
0000 158 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
0000 159 :
0000 160 : SIDE EFFECTS:
0000 161 :
0000 162 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
0000 163 : (VIA RSB) IF ERROR ENCOUNTERED.
0000 164 :
0000 165 : --
0000 166 :
0000 167 :
0000 168 :
0000 169 TM_SETUP::
52 D4 0000 170 CLRL R2 ; INITIALIZE
53 D4 0002 171 CLRL R3 ; .. CONDITION
54 D4 0004 172 CLRL R4 ; .... TABLE
55 D4 0006 173 CLRL R5 ; ..... INDEX
56 D4 0008 174 CLRL R6 ; ..... REGISTERS
FFF3' 30 000A 175 BSBW MOD MSG PRINT ; PRINT TEST MODULE BEGIN MSG
00000000'EF 00000000'EF DE 000D 176 MOVAL TEST_MOD_SUCC,TMD_ADDR ; ASSUME END MSG WILL SHOW SUCCESS
03 00 00000000'8F FO 0018 177 INSV #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
00000000'EF 0020
59 00000000'9F DO 0048 178 MODE TO,5$,KRNL ; KERNEL MODE TO ACCESS PHD
00000000'EF 69 DE 004F 179 MOVL @#CTL$GL PHD,R9 ; GET PROCESS HEADER ADDRESS
0056 180 MOVAL PHD$Q PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
0057 181 MODE FROM,5$ ; BACK TO USER MODE
182 PRIV ADD,ALL ; GET ALL PRIVILEGES
```

```
0077 183 $SETPRN S TEST_MOD_NAME_D ; SET PROCESS NAME
0084 184 SS_CHECK NORMAL ; CHECK STATUS CODE RETURNED FROM SETPRN
00B2 185 :
00B2 186 : THE FOLLOWING CODE ESTABLISHES UIC'S IN THE CONDITION 1 TABLE
00B2 187 :
00B2 188 :
59 00000000'9F D0 00D5 189 MODE TO,20$,KRNL ; KERNEL MODE TO ACCESS PCB
59 00BC C9 D0 00DC 190 MOVL @#SCH$GL_CURPCB,R9 ; GET CURRENT PCB ADDRESS
00E1 191 MOVL PCB$L_UIC(R9),R9 ; PICK UP UIC FROM PCB
00E2 192 MODE FROM,20$ ; ... AND GET BACK TO USER MODE
00E2 193 :
00E2 194 : R9 NOW CONTAINS 'MY' UIC
00E2 195 :
59 5A 01 9A 00E2 195 MOVZBL #1,R10 ; GET COND1 TABLE INDEX NUMBER INTO A REG
59 00010000 8F C1 00E5 196 ADDL3 #^X10000,R9,COND1_E[R10] ; PUT DIFF GROUP UIC INTO 2ND TABLE ELT
0000019C'EF4A 00EC
5A D6 00F2 197 INCL R10 ; POINT TO 3RD COND1 TABLE ELEMENT
0000019C'EF4A 59 D0 00F4 198 MOVL R9,COND1_E[R10] ; PUT MY UIC INTO TABLE
5A D6 00FC 199 INCL R10 ; POINT TO 4TH COND1 TABLE ELEMENT
0000019C'EF4A 59 01 C1 00FE 200 ADDL3 #1,R9,COND1_E[R10] ; PUT DIFF MEMBER UIC INTO THE TABLE
0107 201 $CREMBX_S CHAN=MBXCHAN, LOGNAM=CRENAME, - ; GET MAILBOX FOR PROCESS
0107 202 MAXMSG=#120, PROMSK=#0, BUFQUO=#240
012C 203 SS_CHECK NORMAL ; CHECK NORMAL COMPLETION
015A 204 $GETCHN_S CHAN=MBXCHAN, - ; GET CHAN INFO (UNIT NUMBER)
015A 205 PRIBUF=MBXCHANINFO
0174 206 SS_CHECK NORMAL ; CHECK NORMAL COMPLETION
00000088'EF 00000020'EF 3C 01A2 207 MOVZWL MBXCHANINFO+8+DIB$W_UNIT,MBXUNIT ; SAVE MAILBOX UNIT NUMBER
05 01AD 208 RSB ; RETURN TO MAIN ROUTINE
01AE 209 TM_CLEANUP::
01AE 210 $DELMBX_S MBXCHAN ; DELETE TERMINATION MAILBOX
FE41' 30 01BC 211 BSBW MOD_MSG_PRINT ; PRINT TEST MODULE END MSG
05 01BF 212 RSB ; RETURN TO MAIN ROUTINE
```

```
01C0 214 .SBTTL CONDITION SUBROUTINES - SETUP AND CLEANUP
01C0 215 :++
01C0 216 : FUNCTIONAL DESCRIPTION:
01C0 217 :
01C0 218 : COND X AND COND X CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
01C0 219 : BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
01C0 220 : CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
01C0 221 : ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
01C0 222 : CONDITION X TABLE IS INCLUDED IN THE COND X SUBROUTINE AND CLEANED
01C0 223 : UP, IF NECESSARY, IN THE COND X CLEANUP SUBROUTINE. THIS INCLUDES,
01C0 224 : ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
01C0 225 : OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
01C0 226 : VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
01C0 227 : (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
01C0 228 :
01C0 229 : CALLING SEQUENCE:
01C0 230 :
01C0 231 : BSBW COND X BSBW COND X_CLEANUP
01C0 232 : WHERE X = 1,2,3,4,5
01C0 233 :
01C0 234 : INPUT PARAMETERS:
01C0 235 :
01C0 236 : CONFLICT = 0
01C0 237 :
01C0 238 : IMPLICIT INPUTS:
01C0 239 :
01C0 240 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
01C0 241 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
01C0 242 :
01C0 243 : OUTPUT PARAMETERS:
01C0 244 :
01C0 245 : CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
01C0 246 :
01C0 247 : IMPLICIT OUTPUTS:
01C0 248 :
01C0 249 : R2,3,4,5,6 PRESERVED
01C0 250 :
01C0 251 : COMPLETION CODES:
01C0 252 :
01C0 253 : NONE
01C0 254 :
01C0 255 : SIDE EFFECTS:
01C0 256 :
01C0 257 : NONE
01C0 258 :
01C0 259 : --
01C0 260 :
01C0 261 :
01C0 262 :
05 01C0 263 COND1::
01C0 264 RSB ; RETURN TO MAIN ROUTINE
05 01C1 265 COND1_CLEANUP::
01C1 266 RSB ; RETURN TO MAIN ROUTINE
05 01C2 267 COND2::
01C2 268 RSB ; RETURN TO MAIN ROUTINE
05 01C3 269 COND2_CLEANUP::
01C3 270 RSB ; RETURN TO MAIN ROUTINE
```

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V04-000

SATS SYSTEM SERVICE TESTS \$EXIT (SUCC S 16-SEP-1984 00:53:26 VAX/VMS Macro V04-00  
CONDITION SUBROUTINES - SETUP AND CLEANU 5-SEP-1984 04:31:16 [UETPSY.SRC]SATSSS41.MAR;1

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	01C4	271	COND3::		
05	01C4	272	RSB		; RETURN TO MAIN ROUTINE
	01C5	273	COND3_CLEANUP::		
05	01C5	274	RSB		; RETURN TO MAIN ROUTINE
	01C6	275	COND4::		
05	01C6	276	RSB		; RETURN TO MAIN ROUTINE
	01C7	277	COND4_CLEANUP::		
05	01C7	278	RSB		; RETURN TO MAIN ROUTINE
	01C8	279	COND5::		
05	01C8	280	RSB		; RETURN TO MAIN ROUTINE
	01C9	281	COND5_CLEANUP::		
05	01C9	282	RSB		; RETURN TO MAIN ROUTINE

```
01CA 284 .SBTTL FORM_CONDS
01CA 285 :++
01CA 286 : FUNCTIONAL DESCRIPTION:
01CA 287 :
01CA 288 : FORM CONDS FORMATS AND PRINTS INFORMATION ABOUT
01CA 289 : THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
01CA 290 :
01CA 291 : CALLING SEQUENCE:
01CA 292 :
01CA 293 : BSBW FORM_CONDS
01CA 294 :
01CA 295 : INPUT PARAMETERS:
01CA 296 :
01CA 297 : NONE
01CA 298 :
01CA 299 : IMPLICIT INPUTS:
01CA 300 :
01CA 301 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
01CA 302 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
01CA 303 : FOR X = 1,2,3,4,5 :
01CA 304 : CONDX_T - TITLE TEXT FOR CONDX TABLE
01CA 305 : CONDX_TAB - ELEMENT TEXT FOR CONDX TABLE
01CA 306 : CONDX_C - CONTEXT OF THE CONDX TABLE
01CA 307 : CONDX_E - DATA ELEMENTS OF THE CONDX TABLE
01CA 308 :
01CA 309 : OUTPUT PARAMETERS:
01CA 310 :
01CA 311 : NONE
01CA 312 :
01CA 313 : IMPLICIT OUTPUTS:
01CA 314 :
01CA 315 : NONE
01CA 316 :
01CA 317 : COMPLETION CODES:
01CA 318 :
01CA 319 : NONE
01CA 320 :
01CA 321 : SIDE EFFECTS:
01CA 322 :
01CA 323 : NONE
01CA 324 :
01CA 325 : --
01CA 326 :
01CA 327 :
01CA 328 :
01CA 329 FORM_CONDS::
01CA 330 $FAO_S MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
01E9 331 : FORMAT CONDITIONS HEADER MSG
01E9 332 BSBW OUTPUT_MSG : ... AND PRINT IT
14 00 91 01EC 333 CMPB #COND1_C,#NULL : IS CONDITION 1 NULL ?
03 12 01EF 334 BNEQU 10$ : NO -- CONTINUE
00BF 31 01F1 335 BRW FORM_CONDSX : YES -- SUBROUTINE IS FINISHED
01F4 336 10$:
01F4 337 MOVAL COND1_T,MSG_A : SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
01FF 338 MOVL COND1_TAB[R2],MSG_B : SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
020B 339 MOVB #COND1_C,MSG_CTXT : SAVE CONDITION 1 CONTEXT FOR FAO
0212 340 MOV_VAL COND1_C,COND1_E[R2],MSG_DATA1 : GIVE COND 1 DATA VALUE TO FAO
```

```

      FDEB' 30 0212 341      BSBW WRITE_MSG2      ; FORMAT AND WRITE CONDITION 1 MSG
      14 14 91 0215 342      CMPB #COND2_C,#NULL    ; IS CONDITION 2 NULL ?
      03 12 0218 343      BNEQU 20$                ; NO -- CONTINUE
      0096 31 021A 344      BRW FORM_CONDSX         ; YES -- SUBROUTINE IS FINISHED
      021D 345 20$:
00000000'EF 000001AC'EF DE 021D 346      MOVAL COND2_T,MSG_A      ; SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF 000001AC'EF43 DO 0228 347      MOVL COND2_TAB[R3],MSG_B  ; SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
      00000000'EF 14 90 0234 348      MOVB #COND2_C,MSG_CTXT      ; SAVE CONDITION 2 CONTEXT FOR FAO
      FDC2' 30 023B 349      MOV VAL COND2_C,COND2_E[R3],MSG_DATA1 ; GIVE COND 2 DATA VALUE TO FAO
      14 14 91 023E 351      BSBW WRITE_MSG2      ; FORMAT AND WRITE CONDITION 2 MSG
      03 12 0241 352      CMPB #COND3_C,#NULL    ; IS CONDITION 3 NULL ?
      006D 31 0243 353      BNEQU 30$                ; NO -- CONTINUE
      0246 354 30$:
00000000'EF 000001AD'EF DE 0246 355      MOVAL COND3_T,MSG_A      ; SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF 000001AD'EF44 DO 0251 356      MOVL COND3_TAB[R4],MSG_B  ; SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
      00000000'EF 14 90 025D 357      MOVB #COND3_C,MSG_CTXT      ; SAVE CONDITION 3 CONTEXT FOR FAO
      FD99' 30 0264 358      MOV VAL COND3_C,COND3_E[R4],MSG_DATA1 ; GIVE COND 3 DATA VALUE TO FAO
      14 14 91 0267 359      BSBW WRITE_MSG2      ; FORMAT AND WRITE CONDITION 3 MSG
      47 13 026A 361      CMPB #COND4_C,#NULL    ; IS CONDITION 4 NULL ?
      00000000'EF 000001AE'EF DE 026C 362      BEQLU FORM_CONDSX    ; YES -- SUBROUTINE IS FINISHED
00000000'EF 000001AE'EF45 DO 0277 363      MOVAL COND4_T,MSG_A      ; SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
      00000000'EF 14 90 0283 364      MOVL COND4_TAB[R5],MSG_B  ; SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
      FD73' 30 028A 365      MOVB #COND4_C,MSG_CTXT      ; SAVE CONDITION 4 CONTEXT FOR FAO
      14 14 91 028D 366      MOV VAL COND4_C,COND4_E[R5],MSG_DATA1 ; GIVE COND 4 DATA VALUE TO FAO
      21 13 0290 367      BSBW WRITE_MSG2      ; FORMAT AND WRITE CONDITION 4 MSG
      00000000'EF 000001AF'EF DE 0292 368      CMPB #COND5_C,#NULL    ; IS CONDITION 5 NULL ?
00000000'EF 000001AF'EF46 DO 029D 369      BEQLU FORM_CONDSX    ; YES -- SUBROUTINE IS FINISHED
      00000000'EF 14 90 02A9 370      MOVAL COND5_T,MSG_A      ; SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
      FD4D' 30 02B0 371      MOVL COND5_TAB[R6],MSG_B  ; SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
      02B3 372      MOVB #COND5_C,MSG_CTXT      ; SAVE CONDITION 5 CONTEXT FOR FAO
      02B3 373      MOV VAL COND5_C,COND5_E[R6],MSG_DATA1 ; GIVE COND 5 DATA VALUE TO FAO
      05 02B3 374      BSBW WRITE_MSG2      ; FORMAT AND WRITE CONDITION 5 MSG
      02B3 375 FORM_CONDSX:
      RSB ; RETURN TO CALLER
```

```
02B4 377 .SBTTL VERIFY
02B4 378 :++
02B4 379 : FUNCTIONAL DESCRIPTION:
02B4 380 :
02B4 381 :     VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
02B4 382 :     TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
02B4 383 :     COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
02B4 384 :     SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE
02B4 385 :     ($EXIT). THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
02B4 386 :     BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
02B4 387 :     AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
02B4 388 :     COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
02B4 389 :     ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
02B4 390 :     THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO,
02B4 391 :     PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
02B4 392 :     WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
02B4 393 :     AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
02B4 394 :
02B4 395 : CALLING SEQUENCE:
02B4 396 :
02B4 397 :     BSBW VERIFY
02B4 398 :
02B4 399 : INPUT PARAMETERS:
02B4 400 :
02B4 401 :     NONE
02B4 402 :
02B4 403 : IMPLICIT INPUTS:
02B4 404 :
02B4 405 :     R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
02B4 406 :     FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
02B4 407 :     FOR X = 1,2,3,4,5 :
02B4 408 :         CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
02B4 409 :         TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
02B4 410 :         ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
02B4 411 :         FOR CONDX_E.
02B4 412 :
02B4 413 : OUTPUT PARAMETERS:
02B4 414 :
02B4 415 :     NONE
02B4 416 :
02B4 417 : IMPLICIT OUTPUTS:
02B4 418 :
02B4 419 :     VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
02B4 420 :     IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
02B4 421 :     ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
02B4 422 :     AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
02B4 423 :     ERRORS.
02B4 424 :
02B4 425 : COMPLETION CODES:
02B4 426 :
02B4 427 :     EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
02B4 428 :
02B4 429 : SIDE EFFECTS:
02B4 430 :
02B4 431 :     SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
02B4 432 :     (VIA RSB) IF ERROR ENCOUNTERED.
02B4 433 :
```

```
02B4 434 :--
02B4 435
02B4 436
02B4 437
02B4 438 VERIFY::
00000000'EF 95 02B4 439 TSTB CFLAG ; SHOULD CONDITIONS BE PRINTED ?
03 13 02BA 440 BEQL 5$ ; NO -- CONTINUE
FF0B 30 02BC 441 BSBW FORM_CONDS ; YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
0000010C'EF D4 02BF 442 5$: CLRL CREPID ; INDICATE CREATED PROCESS NOT YET CREATED
02C5 443 $CREPRC_S PIDADR=CREPID, PRCNAM=CRENAME, -
02C5 444 UIC=COND1 E[R2], IMAGE=IMAGNAM, -
02C5 445 MBXUNT=MBXUNIT;, QUOTA=QUOTALIST
02FC 446 ; CREATE THE SUBJECT PROCESS
02FC 447 SS_CHECK NORMAL ; ... AND MAKE SURE IT CREATED OK
032A 448 $QIOW_S CHAN=MBXCHAN, FUNC=#IOS READVBLK, -
032A 449 P1=MBXBUFF+8, P2=MBXBUFF
0353 450 ; WAIT FOR CREATED PROCESS TO SEND MAIL
0353 451 SS_CHECK NORMAL ; CHECK FOR NORMAL STATUS CODE
0000010C'EF 00000098'EF D1 0381 452 CMPL MBXBUFF+12,CREPID ; DID CREATED PROC RETURN EXPECTED STATUS ?
69 13 038C 453 BEQLU VERIFYX ; YES -- ALL IS OK
00000000'EF 0000010C'EF D0 038E 454 MOVL CREPID,EXPV ; NO -- LOAD UP EXPECTED AND
00000000'EF 00000098'EF D0 0399 455 MOVL MBXBUFF+12,RECV ; ... RECEIVED VALUES, THEN EXIT
03A4 456 ERR_EXIT LONG,<INCORRECT EXIT STATUS CODE RETURNED IN MAILBOX>
03F7 457 VERIFYX:
05 03F7 458 RSB ; RETURN TO CALLER
459
```

```
03F8 461 .SBTTL VFY_CLEANUP
03F8 462 :++
03F8 463 : FUNCTIONAL DESCRIPTION:
03F8 464 :
03F8 465 : VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
03F8 466 : EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
03F8 467 : ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
03F8 468 : ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS_CHECK OR ERR_EXIT
03F8 469 : ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
03F8 470 : IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
03F8 471 : WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
03F8 472 : POSSIBLY DISCOVERING A SECOND ERROR.
03F8 473 :
03F8 474 : CALLING SEQUENCE:
03F8 475 :
03F8 476 : BSBW VFY_CLEANUP
03F8 477 :
03F8 478 : INPUT PARAMETERS:
03F8 479 :
03F8 480 : NONE
03F8 481 :
03F8 482 : IMPLICIT INPUTS:
03F8 483 :
03F8 484 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
03F8 485 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
03F8 486 : FOR X = 1,2,3,4,5 :
03F8 487 : CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
03F8 488 : TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
03F8 489 : ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
03F8 490 : FOR CONDX_E.
03F8 491 :
03F8 492 : OUTPUT PARAMETERS:
03F8 493 :
03F8 494 : NONE
03F8 495 :
03F8 496 : IMPLICIT OUTPUTS:
03F8 497 :
03F8 498 : NONE
03F8 499 :
03F8 500 : COMPLETION CODES:
03F8 501 :
03F8 502 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
03F8 503 :
03F8 504 : SIDE EFFECTS:
03F8 505 :
03F8 506 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
03F8 507 : (VIA RSB) IF ERROR ENCOUNTERED.
03F8 508 :
03F8 509 :--
03F8 510 :
03F8 511 :
03F8 512 :
03F8 513 VFY_CLEANUP::
05 03F8 514 RSB
03F9 515 .END ; RETURN TO CALLER
```

	*****	X	04
	000001CA	RG	04
	000002B3	RR	04
	00000065	R	02
	*****	X	04
=	00000004	G	
	0000008C	R	03
	00000008	RR	03
	0000000C	RR	03
	00000088	R	03
	*****	X	04
	*****	X	04
	00000019	R	02
	00000039	RG	02
	*****	X	04
	*****	X	04
	*****	X	04
=	00000000	G	
=	00000014	G	
	*****	X	04
=	000000BC		
	*****	X	04
=	00000000		
	00000000	R	03
=	00000002		
	*****	X	04
=	00000008	G	
	*****	X	04
	*****	X	04
	*****	X	04
	*****	X	04
	*****	X	04
	*****	X	04
	*****	X	04
	*****	GX	04
	*****	GX	04
	*****	GX	04
	*****	GX	04
	*****	X	04
	*****	GX	04
	*****	GX	04
	*****	GX	04
	*****	GX	04
	*****	GX	04
	*****	X	04
	00000000	RG	02
	00000009	R	02
	*****	X	04
	*****	X	04
	000001AE	RG	04
	00000000	RG	04
	000002B4	RG	04
	000003F7	R	04
	000003F8	RG	04
=	00000002	G	
	*****	X	04

+-----+  
! Psect synopsis !  
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS\$	00000000 ( 0.)	01 ( 1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RODATA	00000084 ( 132.)	02 ( 2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
RWDATA	000001B0 ( 432.)	03 ( 3.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
SATSSS41	000003F9 ( 1017.)	04 ( 4.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE

+-----+  
! Performance indicators !  
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	35	00:00:00.11	00:00:00.31
Command processing	135	00:00:00.71	00:00:01.40
Pass 1	269	00:00:07.47	00:00:14.13
Symbol table sort	0	00:00:00.73	00:00:00.99
Pass 2	107	00:00:01.81	00:00:02.45
Symbol table output	13	00:00:00.08	00:00:00.13
Psect synopsis output	3	00:00:00.03	00:00:00.04
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	564	00:00:10.95	00:00:19.47

The working set limit was 1500 pages.

39263 bytes (77 pages) of virtual memory were used to buffer the intermediate code.

There were 30 pages of symbol table space allocated to hold 473 non-local and 23 local symbols.

515 source lines were read in Pass 1, producing 23 object records in Pass 2.

42 pages of virtual memory were used to define 32 macros.

+-----+  
! Macro library statistics !  
+-----+

Macro library name	Macros defined
-\$255\$DUA28:[SHRLIB]UETP.MLB;1	8
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	2
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	19
TOTALS (all libraries)	29

864 GETS were required to define 29 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:SATSSS41/OBJ=OBJ\$:SATSSS41 MSRC\$:SATSSS41/UPDATE=(ENH\$:SATSSS41)+EXECML\$/LIB+SHRLIB\$:UETP/LIB

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